

## **ABSTRACT**

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## **COMMUNICATIONS NETWORK**

- 10 In a label switch communications network, a third level of label is employed in conjunction with a dynamic multiplex constraint-based routed label switched path (CR-LSP) in order to achieve implicit switching at nodes within the network. Implicit switching occurs when a switching function takes place at a node without the need for any control function being required at that node. A three-layer label stack provided at the edge of the network achieves end-to-end connection oriented behaviour with

15 guaranteed Quality of Service. The use of the three-layer label stack concentrates the control of the network to the two edges of the network and a single central switching stage of the network.